

SOME NEMATODES FROM AUSTRALIAN LIZARDS

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Most of the material dealt with in this paper has been collected over a period of very many years by the senior author in New South Wales, Victoria, south-eastern Queensland, Central Australia and South Australia. We are indebted to Professor J. B. Cleland for some of the specimens from New South Wales, and to the late Dr. T. L. Bancroft for those from Eidsvold, Burnett River, Queensland. Acknowledgment is made of assistance from the Commonwealth Research Grant to the University of Adelaide. Types of the new species will be deposited in the South Australian Museum.

HOST-PARASITE LIST

- VARANUS VARIUS Shaw. *Physaloptera antarctica* Linst. (Burnett R., Queensland). *Physaloptera confusa* J. and M. (S.E. Queensland). *Ophidascaris varani* n. sp. (S.E. Queensland).
- VARANUS BELLI Dum. and Bibr. (Probably only a northern variety of *V. varius*). *Physaloptera confusa* J. and M. (Burnett R.).
- VARANUS GOULDI Gray. *Physaloptera antarctica* Linst. (Burnett R., Queensland; Victoria). *P. confusa* J. and M. (S.E. Queensland; Victoria).
- VARANUS GIGANTEUS Gray. *Physaloptera confusa* J. and M. (Central Australia).
- VARANUS PUNCTATUS var. ORIENTALIS Fry (Eidsvold, Burnett R.). *Physaloptera* sp.
- TILIQUA SCINCOIDES Shaw. *Pneumonema filiquae* Johnston (New South Wales). *Physaloptera antarctica* Linst. (New South Wales; S.E. Queensland). *Pharyngodon australe* J. and M. (Burnett R., Queensland). *Pharyngodon tiliquae* Baylis (Burnett R.).
- TILIQUA NIGROLUTEA Gray. *Physaloptera antarctica* Linst. *Physaloptera* sp., and *Pharyngodon australe* J. and M. (all from Katoomba, New South Wales).
- TRACHYSAURUS RUGOSUS Gray. *Thelandros trachysauri* n. sp. (Adelaide, South Australia).
- EGERNIA CUNNINGHAMI Gray. *Pharyngodon tiliquae* Baylis (Bathurst, New South Wales).
- EGERNIA STRIOLATA Peters. *Pharyngodon filiquae* Baylis (Sydney and Kendall, New South Wales).
- EGERNIA WHITEI Lacep. *Pharyngodon tiliquae* Baylis (Sydney, New South Wales).
- EGERNIA DAHLI Boulenger. *Pharyngodon tiliquae* Baylis. *Amphibiophilus egerinae* n. sp. (Both from Musgrave Ranges, Central Australia.)
- LYGOSOMA QUDDI D. and B. *Physaloptera* sp. (Lower Hawkesbury River, New South Wales).
- OEDURA ROBUSTA Boulenger. *Physaloptera* sp.; *Parathelandros oedurae* n. sp. (both from West Burleigh, S.E. Queensland).

Amphibiophilus ogerniae n. sp.
(Fig. 1-3)

Two males and one female trichostrongylid worms were taken from the intestine of *Egernia dahli*, Ernabella, Musgrave Ranges, Central Australia. The males are 3.9-4.4 mm. long, and the female 8.3 mm. The body is spirally coiled, and narrow lateral alae are present. The mouth leads to a small buccal cavity in which is one tooth. The oesophagus, .3 mm. long in the male, is somewhat wider in its posterior third, and is surrounded by the nerve ring just before this level.

The vulva lies near the posterior end, .2 mm. in front of the anus. The tail is .07 mm. long. The egg nearest the vulva is oval and measures $65 \mu \times 30 \mu$.

The bursa is tightly folded in both male specimens available, but the lateral lobes appear to be symmetrical. The dorsal lobe is hardly demarcated from the lateral lobes. The arrangement of the rays is indicated in the accompanying

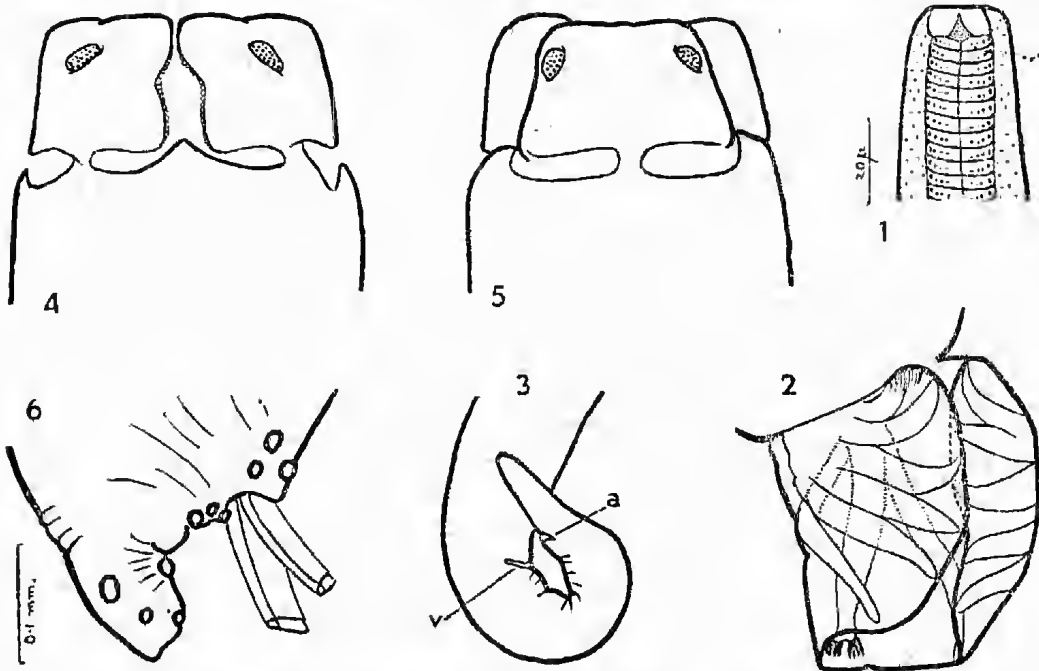


Fig. 1-3. *Amphibiophilus ogerniae*: 1, head; 2, male tail; 3, posterior end of female. 4-6, *Ophidascaris varani*: 4, 5, head; 6, male tail. Fig. 3, 4, 5 and 6 to same scale.

fig. (fig. 2). The external dorsal ray appears to arise from beside the base of the dorsal, rather than from the latter. The dorsal gives rise to two branches, each of which has four terminal digits. The spicules are simple, .2 mm. in length, with the proximal half wider than the distal. A gubernaculum, .045-.05 mm. long is present.

The species appears to us to be the nearest to those of the genus *Amphibiophilus*, differing from them, however, in having four, instead of the three, terminal processes on each branch of the dorsal ray.

Ophidascaris varani n. sp.
(Fig. 4-6)

A single male worm belonging to the genus *Ophidascaris* was taken from *Varanus varus* from Toowoomba, Queensland. It measures 7 mm. in length. The very short interlabia are separated from the lips by deep grooves, and both

interlabia and grooves are bordered by a wide continuous cuticular flange. The lips have a very narrow lateral flange, bearing a fine denticerous ridge. The oesophagus is 4.8 mm. long. The position of the nerve ring is not clear. The posterior end narrows suddenly at the level of the anus. The tail, .15 mm. long, bears two pairs of lateral and two pairs of sub-median papillae. There are a pair of adanal double-headed papillae, and about 30 pairs of small pre-anal papillae. The presence of median pre- and post-anal papillae is doubtful. The alate spicules are .9 mm. long; their length being much shorter than any hitherto recorded for species of *Ophidascaris*. In addition to this characteristic the present specimen differs from the other species of the genus recorded as occurring in Australia, *O. filaria* (Duj.) and *O. pyrulus* J. and M., in the length of the interlabia and in the number of caudal papillae.

PHYSALOPTERA ANTARCTICA Linst.

This species has been taken in large numbers from *Tiliqua scincoides* (New South Wales and S.E. Queensland); *Varanus gouldi* (Burnett River, Queensland; and Victoria); *T. nigroluta* (Katoomba, New South Wales), and *V. varius* (Burnett River, Queensland).

A very great variation in size has been observed, mature female specimens in some collections being only about 2 cm. long, in others reaching 5 cm.

PHYSALOPTERA CONFUSA J. and M.

This species, which was originally recorded by us (1942) from the tiger snake, *Notechis scutatus*, is very close to *P. antarctica* Linst., as redescribed by Irwin-Smith (1922, 57; 1922, 233) from material from *Tiliqua* spp., and *Varanus varius* (1922, 419). It was suggested by us that *P. confusa* might be restricted to snakes. This, however, does not seem to be the case, since among a large number of Physalopterids now examined from *Varanus* spp. some are determined as *P. antarctica* and some as *P. confusa*. The latter nematode is now recorded from *Varanus gouldi*, Caloundra, South Queensland, and Victoria; *V. varius*, Toowoomba and West Burleigh, Queensland; *V. belli*, Eidsvold, Burnett River, Queensland; and *V. giganteus*, Hermannsburg, Central Australia.

PHYSALOPTERA sp.

In some collections there were Physalopterid worms in an immature condition, or too poorly preserved for satisfactory examination, so that the species could not be determined. Such material was observed in collections from *Tiliqua nigroluta* (Katoomba, New South Wales); *Varanus punctatus* var. *orientalis* (Eidsvold, Burnett River); *Lygosoma quoyi* (Hawkesbury R., New South Wales); and *Oedura robusta* (West Burleigh, Queensland).

PNEUMONEMA TILIQUEAE JOHNSON

Many specimens of this parasite of the lungs were examined from the type host, *Tiliqua scincoides*, from Sydney. As in the original material, females only were present.

Thelandros trachysauri n. sp.

(Fig. 7-8)

From *Trachysaurus rugosus*, Adelaide. Males up to 2 mm., females to 3.5 mm. Vestibule practically absent. Oesophagus .55 mm. long in the male, .6 mm. in the female. Excretory pore post-oesophageal. Nerve ring about .2 mm. from the anterior end in the male. The vulva is 1.4 mm. from the posterior end of the body in a female 3.2 mm. long, i.e., just posterior to the mid-body. Eggs are thin-shelled, 54 μ x 100 μ . The female tail tapers gradually to a fine point, and measures .4 mm. in length.

The male tail, or dorsal spine, is .1 mm. long and bears one median papilla at about its mid-length. There are a pair of pre-anal and a pair of post-anal papillae, and a median post-anal prominence which is a true papilla. The spicule is .1 mm. long. The species closely resembles *T. kartana* J. and M., from which it is distinguished by the greater length of the spicule and the different shape of the egg.

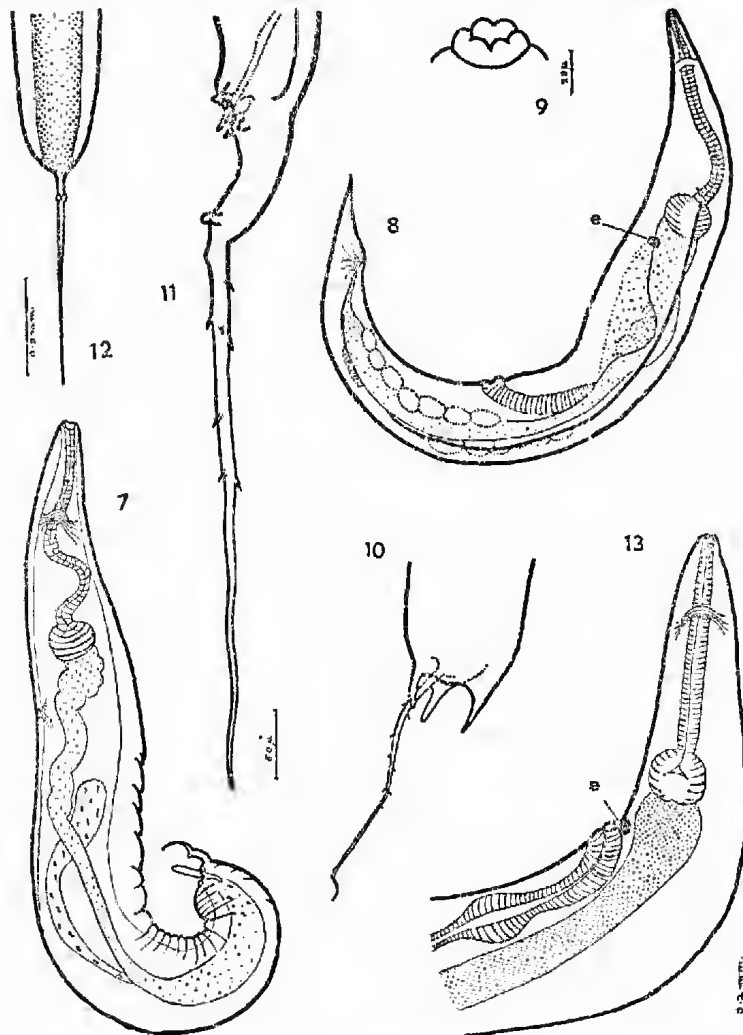


Fig. 7-8. *Thelandros brachysanci*: 7, male; 8, female. 9-13. *Parathelandros oedurae*: 9, head; 10, posterior end of female; 11, posterior end of male; 12, male tail, ventral view; 13, anterior end of female. Fig. 9, 10 and 12 to same scale; fig. 7 and 13 to same scale.

Parathelandros oedurae n. sp.

(Fig. 9-13)

From *Oedura robusta*, from West Burleigh, South-east Queensland. Collections were made from several specimens of this host species. Males up to 1.6 mm. long and .24 mm. wide; females 6 mm. long and .32 mm. wide, inclusive of the tail spike and lateral alae in both cases. Body tapering markedly towards head. Lateral alae present from about posterior end of oesophagus to level of anus,

and relatively very much wider in male than in female. Posterior end in both sexes bears a long, tapering spined spike. In the female the posterior end bears, in addition, three stout backwardly directed "horns" which are strongly cuticularised extensions of the body wall, but are not so long as the tail spike. Oesophagus .3 mm. long in the male, .6 mm. in the female, its anterior part cylindrical, and ending in a large spherical bulb .13 mm. in diameter in the female. In the adult female the rectum is very narrow and quite insignificant. Nerve ring .13 mm. in male and .15 mm. in female from the anterior end of the body. Excretory pore post-oesophageal, just in front of vulva in the female.

Male: Body tapers abruptly at level of cloaca to end in spike .7 mm. long, on which are a pair of papillae and about 12-15 small spines (fig. 11). A pair of pre-anal and a pair of post-anal papillae are present. One spicule, .11 mm. long, and a gubernaculum about .03 mm. long, have been observed; the presence of a second spicule is probable, but was not seen, perhaps owing to the concentration of tissues in this region.

In the female the tail spine is about .9 mm. long, and bears about 16 small spines. The horn-like processes at the posterior end of the body proper are .13 mm. long (fig. 10). Uterus narrow, but very long and much twisted, its loops extending behind the termination of the intestine. Eggs $142 \mu \times 43 \mu$. Vulva at level of oesophageal bulb or just post-oesophageal.

The species differs very little from *P. molis* Chitwood, the distinguishing features in the male of the present species being the absence of a median post-anal papilla, the presence of tail spines, and the presence of a spicule; and in the female, the form of the posterior end of the body and the size of the eggs.

PHARYNGODON Diesing 1861

The genus *Pharyngodon* has been recorded several times from Australian hosts, four species being named from reptiles. These species are not all included in the valuable analysis of, and key to, the genus published by Spanl (1926), since *P. hiedleri* Thapar 1925 was the only one of them described prior to 1926. Following that key, all the recorded Australian species fall into the group "Aa", that is, species in which caudal alae of the male include the pair of post-anal papillae, and in which the adanal pair of papillae are forked. We have further differentiated this group as follows:—

- | | | |
|--|--|---|
| 1. Female tail spined.
Female tail naked. | <i>P. karriqua</i> J. and M. | 2 |
| 2. Spike of male tail two to three times length of bursa.
Spike longer than, but not twice length of, bursa.
Spike shorter than length of bursa. | <i>P. tiliquae</i> Baylis
<i>P. hiedleri</i> Thapar
<i>P. australe</i> J. and M. | |

Other differences between these species concern the position of the excretory pore and the size of the eggs. It is remarkable that three of them should have been recorded from the same host species, *Tiliqua scincoides*. As far as the information at present available is concerned, all these species appear valid.

PHARYNGODON TILIQUEAE Baylis 1930

This species was originally described from *Tiliqua scincoides*; it is now recorded from that host from Eidsvold, Queensland; *Egernia reticorpus* (Sydney); *E. striolata* (Kendall, New South Wales); *E. cunninghami* (Bathurst, New South Wales); and *E. dahl* (Musgrave Ranges, Central Australia). *Pharyngodon* sp., described by Thapar (1925) from female specimens from *E. cunninghami* agrees with the description given of *P. tiliquae*, and can now be placed in the synonymy of the latter.

PHARYNGODON AUSTRALE J. and M.

Originally described by us (1942) from *Tiliqua scincoides*, from New South Wales, this species is now recorded from the same host species from Eidsvold, Queensland; and from *Tiliqua nigrolutea*, from Katoomba, New South Wales.

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A REVISION OF THE AUSTRALIAN PHYCITIDAE

BY A. JEFFERIS TURNER

Summary

Mr A. J. T. Janse is at present engaged on a Revision of the whole of the world genera of this large family, and I am much indebted to him for sending me advance copies of some of his work. This has encouraged and helped me in the preparation of this paper. The family is naturally divisible into two subfamilies, the Aneastrianae, which have no tongue, and the Phycitinae, in which the tongue is fully developed.

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PART I

By A. JEFFERIS TURNER

Communicated by H. Womersley, 14 November 1946

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Subfam. ANERSTRIANAE

KEY TO GENERA

1. Hindwings with 3 and 4 absent.		2
Hindwings with not both absent.		3
2. Forewings with 5 absent, 3 and 4 stalked.	<i>Staitina</i>	
Forewings with 5 absent, 3 and 4 separate.	<i>Calamotropha</i>	
3. Hindwings with 5 absent.		4
Hindwings with 5 present.		5
4. Hindwings with 6 and 7 stalked.		5
Hindwings with 6 and 7 coincident.	<i>Alloea</i>	
5. Hindwings with cell closed.		6
Hindwings with cell open.	<i>Anaresca</i>	
6. Forewings with 5 absent.		7
Forewings with 5 present.		8
7. Face with conical anterior projection.	<i>Anerastria</i>	
Face not projecting.		8
8. Palpi with terminal joint turned downwards.	<i>Anchylobela</i>	
Palpi not so.	<i>Lioprosopa</i>	
9. Forewings with 4 and 5 stalked.	<i>Saluria</i>	
Forewings with 4 and 5 not stalked.		10
10. Hindwings with cell less than one-half.	<i>Emmalocera</i>	
Hindwings with cell more than one-half.	<i>Creobota</i>	

Gen. STAITINA Rag.

N. Amer. Phycit., 19.

Face with anterior tuft of scales. Palpi long, down-curved. Maxillary palpi minute. Forewings with 3 and 4 stalked, 5 absent. Hindwings with 3 and 4 absent, 6 and 7 stalked. Type, *S. roseotinctella*, from North America.

STAITINA RHODOBAPHELLA Rag.⁽¹⁾

Nov. Gen., 50; Rom. Mem., 8, 417.

Queensland. New Guinea. Celebes.

⁽¹⁾ = Sp. unknown to me.

Gen. CALAMOTROPHIA Hmps.

P.Z.S., 1918, 91.

Face with pointed conical prominence. Palpi long, down-curved. Maxillary palpi dilated. Forewings with 3 and 4 separate, 5 absent. Hindwings with 3 and 4 absent, 6 and 7 stalked. Type, *C. pulverulenta* Hmps.

CALAMOTROPHIA PULVERIVENA Hmps.⁽²⁾

P.Z.S., 1918, 91.

West Australia: Sherlock River.

Gen. ANERASTRIA Hb.

Verz., 367.

Face with conical anterior projection. Palpi long, perfect. Antennae of male with sub-basal dorsal notch. Forewings with 5 absent, 9 and 10 stalked or separate. Hindwings with cell short, 3 and 4 stalked, 5 absent. Type, *A. lotella* Hb., from Europe.

ANERASTRIA MIRABILELLA Meyr.

Proc. Linn. Soc. N.S.W., 1878, 213.

Sydney.

ANERASTRIA ERASMIA Turn.

Proc. Roy. Soc. Qld., 1912, 117.

Atherton, Injune, Carnarvon Range.

ANERASTRIA VIRGINELLA Meyr.

Proc. Linn. Soc. N.S.W., 1880, 233; *neurica* Turn., Proc. Roy. Soc. Qld., 1912, 113.

Darwin, Brocks Creek, Cape York, Cairns, Atherton, Duinga, Lismore.

Anerastia rhodochros n. sp.*ῥοδαχρος*, rosy.

♂ ♀. 18-22 mm. Head and thorax dark reddish or rosy-grey. Palpi 6; rosy-grey. Antennae pale grey; in male with a sub-basal dorsal notch followed by a fusiform glandular swelling. Abdomen grey-whitish, base of dorsum ochreous. Forewings with costa rather strongly arched, apex rounded; bright rosy with slender white lines on veins confluent towards base; cilia white, partly rosy-tinged. Hindwings grey-whitish; cilia white. Forewings broader than in *A. virginella* Meyr., with apices more broadly rounded.

North Queensland: Cape York in September and April (W. B. Barnard); three specimens. Type in Queensland Museum.

Anerastia albivena n. sp.*albivenus*, white-veined.

♂. 19-20 mm. Head and thorax dull rosy; face with strong conical anterior projection. Palpi 6; dull rosy. Antennae pale grey; in male with basal glandular thickening. Abdomen grey, base of dorsum ochreous; tuft whitish. Forewings with costa gently arched, apex rounded; bright rosy; veins slenderly and discretely outlined with white; cilia rosy. Hindwings and cilia grey.

New South Wales: Murrurundi in October (Dr. B. L. Middleton); one specimen.

⁽²⁾ = Sp. unknown to me.

ANERASTRIA MICRORRHODA Turn.

Proc. Linn. Soc. N.S.W., 1923, 453.
Darwin.

ANERASTRIA METALLACTIS Meyr.

Meyr. Trans. Ent. Soc., 1887, 262.
Darwin, Noosa, Chinchilla, Bathurst.

Anerastia xyloides n. sp.

ξύλωδης, wooden.

♂. 24 mm. Head and thorax fuscous. Palpi 6; pale brownish. Antennae grey. Abdomen ochreous; terminal segments and tuft grey-whitish. Forewings elongate, costa gently arched, apex rounded, termen obliquely rounded; pale brownish; a subcostal whitish stripe from base to two-thirds, edged beneath by a fuscous line; a terminal series of minute dark fuscous dots; cilia pale grey. Hindwings grey; cilia whitish.

North Queensland: Cairns in December (F. H. Taylor); one specimen.

Anerastia clepsiphronica n. sp.

κλεψιφρονικός, deceitful.

♂. 18 mm. Head and thorax rosy. Palpi 4; rosy. Antennae grey. Abdomen pale ochreous, terminal segments and tuft whitish. Forewings with costa gently arched, apex rounded, termen obliquely rounded; 3 and 4 closely approximated at origin; rosy; all veins slenderly outlined with whitish; a submarginal series of minute fuscous dots; cilia pale rosy. Hindwings and cilia whitish. A close mimic of *Lioprosopa chlorogramma* Meyr., but readily distinguished by its shark-like head. There is a slight variation in the forewing from that usual in *Anerastia*.

Queensland: Brisbane in October; one specimen.

Gen. *Lioprosopa* nov.

λεωπρωσπος, smooth-faced.

Face smooth or with an anterior superior tuft. Forewings with 5 absent. Hindwings with cell less than one-half, 3 and 4 stalked, 5 absent. Type, *L. chlorogramma* Meyr.

LIOPROSOPA NIPHOPLEURA Turn.

Proc. Roy. Soc. Qld., 1912, 111.
Darwin, Melville Island, Brocks Creek.

LIOPROSOPA HAPLOSHEMA Turn.

Proc. Roy. Soc. Qld., 1903, 117; *pleurochorda* Turn, Proc. Roy. Soc. Qld., 1912, 117
Yeppoon, Duarina, Brisbane, Stanthorpe.

LIOPROSOPA NIPHOSEMA Turn.

Proc. Roy. Soc. Qld., 1912, 112.
Darwin, Adelaide River.

LIOPROSOPA HOLOPHAEA Turn.

Proc. Roy. Soc. Qld., 1923, 42.
Darwin, Brisbane.

LIOPROSOPA ICASMOPIS Turn.

Proc. Roy. Soc. Qld., 1903, 116.

Townsville.

LIOPROSOPA STEREOSTICHA Turn.

Proc. Roy. Soc. Qld., 1904, 41.

Thursday Island, Dalby, Stanthorpe.

LIOPROSOPA EURYSTICHA Turn.

Proc. Roy. Soc. Qld., 1903, 119.

Brocks Creek, Townsville.

Lioprosopa dimochla n. sp.

διμοχλος, two-barred.

♂. 20 mm. Head and thorax greyish-brown. (Palpi missing.) Antennae in male with sub-basal notch followed by a fusiform glandular swelling. Abdomen whitish-ochreous. Forewings with costa straight, apex rounded; brownish-grey; costal edge fuscous; a whitish costal stripe from base to apex; a similar dorsal stripe from base to tornus, interrupted by fuscous dots at one-third and two-thirds; cilia grey, bases whitish. Hindwings and cilia whitish.

North Australia: Brocks Creek in January (T. G. Campbell); one specimen.

Lioprosopa phaulodes n. sp.

φωλωδης, paltry.

♂. 16 mm. Head and thorax grey. Palpi 2 and a half; grey. Antennae pale grey; in male with a sub-basal dorsal notch followed by a fusiform glandular swelling. Abdomen whitish-grey, base of dorsum ochreous. Forewings with costa slightly arched, apex rounded; grey-whitish with sparsely scattered fuscous scales; a terminal series of blackish dots; cilia grey-whitish. Hindwings and cilia whitish.

North Queensland: Dunk Island in May; one specimen.

Lioprosopa pelopa n. sp.

πελωπος, dusky.

♀. 18 mm. Head and thorax dark brown. Palpi 4; dark brown, base beneath white (Antennae missing.) Abdomen fuscous, base of dorsum brownish; tuft white. Forewings with costa slightly arched, apex rounded; brown; dorsum broadly fuscous; costal edge white; two slender outwardly oblique white lines from costa before apex; a blackish terminal line; cilia white, apices except on tornus fuscous, a short blackish median line at apex. Hindwings pale grey; cilia white.

North Australia: Darwin in December (G. F. Hill); two specimens.

Lioprosopa phaeochiton n. sp.

φαιοχιτων, dark-robed.

♀. 18 mm. Head and thorax fuscous. (Palpi missing.) Antennae grey-whitish. Abdomen pale grey. Forewings with costa straight, apex rounded; dark fuscous; a broad whitish costal stripe from base to apex, narrower towards base, containing very fine longitudinal fuscous lines; a terminal series of minute blackish dots; cilia grey with fuscous antemedian line. Hindwings and cilia whitish.

North Queensland: Cape York in October (W. B. Barnard); one specimen.

Lioprosopa pachyzancla n. sp.

παχυζαγκλος, with thick sickles.

♀. 16-18 mm. Head and thorax greyish-brown. Palpi ascending, recurved, thickened with appressed scales, apex pointed; dark fuscous. Antennae grey. Forewings narrow, costa almost straight, apex rounded; grey; a broad white dorsal streak, narrowing towards base and apex, containing very fine fuscous longitudinal lines and a dot at two-thirds; cilia grey. Hindwings and cilia grey.

North Queensland: Cape York in October and November (W. B. Barnard); five specimens. Type in Queensland Museum.

LIOPROSOPA SYSSEMA Turn.

Proc. Roy. Soc. Qld., 1912, 113.

Darwin, Chinchilla, Kimberley.

LIOPROSOPA ZOPHOPEURA Turn.

Proc. Roy. Soc. Qld., 1903, 117.

Darwin, Brocks Creek, Claudie River, Townsville, Brisbane.

Lioprosopa sporadica n. sp.

σποραδικος, sprinkled.

♂, ♀. 16-20 mm. Head and thorax whitish. Palpi 3; whitish. Antennae pale grey. Abdomen whitish, base of dorsum ochreous-tinged. Forewings with costa straight to middle, thence strongly arched; whitish lightly sprinkled with fuscous and brownish; sometimes a dark fuscous dot in disc at two-thirds; a terminal series of dark fuscous dots; cilia grey. Hindwings and cilia white. Hindwings grey-whitish; cilia whitish.

North Queensland: Cape York in October and November (W. B. Barnard); two specimens.

Lioprosopa rhadinodes n. sp.

ραδινοδης, slender.

♂. 9 mm. Head and thorax white. Palpi 3; white. Antennae whitish; in male with sub-basal dorsal notch. (Abdomen missing.) Forewings with costa slightly arched, apex rounded; white; cilia white. Hindwings and cilia white.

North Queensland: Dunk Island in May; one specimen.

Lioprosopa tanybela n. sp.

τανυβελος, with long palpi.

♂, ♀. 14-17 mm. Head and thorax grey. Palpi in male 5, in female 8; grey. Abdomen pale grey, base of dorsum ochreous. Forewings slightly arched, apex rounded; whitish or grey-whitish; sometimes a few subdorsal or subterminal blackish dots; a terminal series of blackish dots; cilia concolorous. Hindwings and cilia white.

North Queensland: Lindeman Island in September; four specimens.

Lioprosopa haploa n. sp.

απλοος, simple

♂. 18-20. Head grey; face in male white, in female grey. Palpi in male 3, white; in female 8, grey. Antennae grey; in male dentate, with a sub-basal dorsal notch followed by a glandular swelling. Abdomen ochreous; tuft white. Forewings with costa gently arched, apex rounded; grey-whitish; veins outlined with white; sometimes a grey line above middle from base to apex; cilia white. Hindwings pale grey; cilia white.

North Queensland: Lindeman Island in September; four specimens.

LIOPROSOPA MARCIDA Turn.

Proc. Linn. Soc. N.S.W., 1923, 455.
Queensland: Miles.

LIOPROSOPA MACRORRHYNCHIA Turn.

Proc. Linn. Soc. N.S.W., 1923, 456.
Townsville, Milmerran.

Lioprosopa thiomochla n. sp.

θειασμοχλος, sulphur-barred.

♂, ♀. 20-22 mm. Head and thorax grey. Palpi 5; grey. Antennae in male shortly pectinate (1 and a half); grey-whitish. Abdomen whitish-ochreous, base of dorsum brown. Forewings with costa slightly arched, apex rounded; brownish-grey; dorsum suffused with whitish-ochreous; a pale yellowish costal stripe from base to apex; a fuscous dot above two-fifths dorsum; a subterminal line of minute fuscous dots; cilia grey. Hindwings and cilia grey-whitish.

North Australia: Darwin in November. Queensland: Dalby. North-West Australia: Kimberley in February. Three specimens.

Lioprosopa colobela n. sp.

κολοβελος, with short palpi.

♂. 23 mm. Head and thorax pale reddish. Palpi short (1 and a fourth), broad as base, gradually attenuating to an acute apex; reddish-grey. Antennae pale grey; in male shortly laminate, with a shallow posterior excavation clothed with long hairs near base. Abdomen grey; tuft ochreous-whitish. Forewings with costa almost straight, apex obtusely pointed; dull rosy, paler towards termen; veins slenderly outlined with white; a white costal stripe narrow at base and apex; cilia whitish. Hindwings and cilia whitish.

North Queensland: Gordonvale, near Cairns; one specimen.

Lioprosopa platymochla n. sp.

πλατυμοχλος, broadly striped.

♂, 25 mm. Head and thorax white. Palpi 8; external surface grey; internal white. Antennae fuscous; in male shortly pectinate. Abdomen ochreous; tuft white. Forewings with costa straight, apex round-pointed; grey finely sprinkled with white; a broad white costal stripe from base nearly to apex; costal edge grey-sprinkled; a grey line beneath costal stripe; cilia white; Hindwings and cilia white.

Queensland: Cunnamulla in October; one specimen.

Lioprosopa transecta n. sp.

transectus, cut across.

22 mm. Head, antennae, and thorax white. (Palpi missing.) Abdomen ochreous-grey, towards base ochreous-brown. Forewings elongate, costa slightly arched, apex rounded, termen obliquely rounded; white; a dark fuscous sub-costal stripe from base to apex; a subterminal series of small dark fuscous marks; a terminal series of minute terminal dots; cilia white. Hindwings and cilia white.

Queensland: Injune in February (W. B. Barnard); one specimen.

LIOPROSOPA MARCIDA TURN.

Proc. Linn. Soc. N.S.W., 1923, 455.
Miles.

LIOPROSOPA MACRORRHYNCHA Turn.

Proc. Linn. Soc. N.S.W., 1923, 456.
Townsville, Milmerran.

LIOPROSOPA BISERIELLA Hmps.

Rom. Mem., 8, 397. Turn., Proc. Linn. Soc. N.S.W., 1923, 455.
Darwin, Cooktown, Duaringa, Jericho, Brisbane, Sherlock River, Kimberley.

LIOPROSOPA DYSEIMATA Turn.

Proc. Roy. Soc. Qld., 1912, 112; *arrophaea* Turn., Proc. Roy. Soc. Qld., 1912, 117.
Darwin, Dunk Island, Wyndham, Timor Laut.

LIOPROSOPA EURYZONA Meyr.

Ent. Mo. Mag., 19, 256.
South Australia: Wirrabara.

LIOPROSOPA ACIDNIAS Turn.

Proc. Roy. Soc., 1903, 117.
Townsville.

LIOPROSOPA MINIMELLA Hmps.

Rom. Mem., 8, 392; Turn., Proc. Linn. Soc. N.S.W., 1923, 454.
Darwin, Thursday Island, Celebes, Borneo.

LIOPROSOPA CHLOROGRAMMA Meyr.

Proc. Linn. Soc. N.S.W., 1899, 1, 116; *rhodosticha* Turn., Proc. Linn. Soc. Roy. Soc. Qld., 1903, 116.

Reid River, Duaringa, Brisbane, Tweed Heads, Macpherson Range, Rosewood, Toowoomba, Injune, Milmerran, Murrurundi.

Lioprosopa poliosticha n. sp.

πολιοστιχος, grey-lined.

♂, 22-24 mm. Head and thorax whitish. Palpi 4 and a half; grey-whitish. Antennae whitish; in male with a sub-basal dorsal notch. Abdomen whitish, basal half of dorsum ochreous; tuft white. Forewings with costa gently arched, apex obtuse; white lightly sprinkled with minute grey scales; a pale grey median stripe from base beneath cell to vein 2; cilia white. Hindwings pale grey; cilia white. North Queensland: Herberton in September; four specimens.

Lioprosopa rhantista n. sp.

αντιστος, sprinkled.

♂, 24-26 mm. Head and thorax grey. Palpi 3; whitish. Antennae whitish; in male with a sub-basal comb of long hairs. Abdomen ochreous or fuscous; tuft white. Forewings with costa rather strongly arched, apex rounded; white very lightly sprinkled with pale grey except on veins; cilia white. Hindwings grey-whitish; cilia white.

North Queensland: Lindeman Island in September; two specimens.

LIOPROSOPA LAROPIS Turn.

Proc. Roy. Soc. Qld., 1912, 113.
Darwin.

LIOPROSOPA ARGOSTICHA Turn.

Proc. Roy. Soc. Qld., 1912, 115.
Darwin, Cape York, Dalby.

LIOPROSOPA PSAMATHIELLA Meyr.

Proc. Linn. Soc. N.S.W., 1879, 234; *nitens* Butl., Tr. Ent. Soc., 1886, 440; *baliora* Turn., Proc. Roy. Soc. Qld., 1912, 116.

Cairns, Peak Downs, Brisbane, Dalby, Sydney, Fernshaw.

LIOPROSOPA ANAEMOPIS Turn.

Proc. Roy. Soc. Qld., 1912, 116.

Darwin.

LIOPROSOPA ABLEPTA Turn.

Proc. Roy. Soc. Qld., 1912, 114.

Darwin, Cairns, Dunk Island, Reid River, Nambour, Brisbane, Mount Tamborine, Bunya Mountains.

LIOPROSOPA TALIELLA Hmps.

Rom. Mem., 8, 402.

Queensland.

LIOPROSOPA MINORALIS Low.

Trans. Roy. Soc. S. Aust., 1903, 52.

Mackay.

Gen. *Anchylobela* nov.

ἀγχυλοβελος, with crooked palpi.

Tongue absent. Palpi moderate, porrect; terminal joint bent downwards. Antennae in male with sub-basal dorsal notch, followed by a fusiform swelling. Forewings with cell two-thirds, 2 from before angle, 3 and 4 stalked, 5 absent. Hindwings with cell one-half, 2 from before angle, 3 and 4 stalked, 5 absent.

Anchylobela haplodes n. sp.

ἁπλοδης, simple.

♂. 16-17 mm. Head and thorax pale ochreous grey. Palpi 2 and a half, terminal joint short, pointed; pale ochreous-grey. Abdomen pale ochreous-grey, towards base deep ochreous. Forewings with costa arched, apex rounded, termen obliquely rounded; pale ochreous-grey with very scanty fuscous sprinkling; a terminal series of blackish dots; cilia whitish. Hindwings grey-whitish; cilia whitish.

North Queensland: Kuranda in September (W. B. Barnard), two specimens. Type in Queensland Museum.

Gen. SALURIA Rag.

Palpi long, porrect. Antennae in male with sub-basal dorsal notch. Forewings with 4 and 5 stalked. Hindwings with cell less than one-half, 3 and 4 stalked, 5 absent.

SALURIA ABENOCERA Turn.

Proc. Linn. Soc. N.S.W., 1923, 458.

Cairns, Cunnamulla.

SALURIA RHODOESSA Turn.

Proc. Roy. Soc. Qld., 1903, 120; *distichella* Hmps., Proc. Zool. Soc., 1918, 101. Brocks Creek, Cairns, Townsville.

SALURIA CALLIRHODA Turn.

Proc. Roy. Soc. Qld., 1903, 120.

Claudia River, Palm Island, Townsville.

SALURIA LEUCONEURA Turn.

Proc. Roy. Soc. Qld., 1912, 118.

Darwin, Cape York, Innisfail, Townsville, Ayr.

SALURIA HOLOCHROA Turn.

Proc. Roy. Soc. N.S.W., 1903, 121.

Duaringa, Emerald, Birchip.

SALURIA PLEUOSTICHA Turn.

Proc. Roy. Soc. Qld., 1903, 115.

Brocks Creek, Townsville.

SALURIA CTENUCHA

Proc. Roy. Soc. Qld., 1912, 118.

Darwin, Townsville, Injune.

SALURIA GRAMMIVENA Hmps.

Proc. Zool. Soc., 1918, 99; Turn., Proc. Linn. Soc. N.S.W., 1923, 459.

North Australia: Alexandria, Sherlock River.

Saluria stereochorda n. sp.*στερεοχορδος*, straight-barred.

♂, ♀. 24-26 mm. Head white. Palpi in male 3 and a halí, in female 5; grey, lower edge white. Maxillary palpi in male short, ending in a terminal tuft of long white hairs; in female filiform; grey. Antennae grey. Thorax white; bases of tegulae grey. Abdomen in male grey; in female ochreous; in both with base and tuft white. Forewings with costa straight, apex rounded; white, in female sprinkled with grey; a straight subcostal grey bar from base to apex in male, in female a median suffused bar extending to angle of cell; veins 2 to 5 grey; in male cilia white, but on apex grey; in female grey with white apices. Hindwings grey; cilia white.

Queensland: Bunya Mountains in September; two specimens.

Saluria pelochroa n. sp.*πελοχροος*, dusky.

♀. 28 mm. Head, thorax, abdomen, and antennae fuscous. Palpi 3, ascending; fuscous. Forewings with costa straight, apex rounded; fuscous; a whitish line sprinkled with fuscous on costa from base to apex.

Tasmania: Burnie in January; one specimen.

SALURIA DESERTELLA Hmps.

Proc. Zool. Soc., 1918, 977; Turn., Proc. Linn. Soc. N.S.W., 1923, 459.

Alexandria, Injune, Carnarvon Range, Charleville, Cunnamulla, Sherlock River, Wyndham.

SALURIA XIPHOMELA Low.

Trans. Roy. Soc. S. Aust., 1903, 52.

Cooktown.

SALURIA NEOTOMELLA Meyr.

Proc. Linn. Soc. N.S.W., 1879, 226.

Sydney.

SALURIA NEURICELLA Hmps.

Proc. Zool. Soc., 1918, 98.

Peak Downs.